INVERTER FUSION LTD

i-TECH160

DC Inverter Arc Welding Machine

User Manual

Do not attempt to set up or operate this equipment until you have read & fully understood the contents of this manual. If you do not fully understand any of the instructions, please contact your supplier for further information & advice before beginning any welding procedure.

Warranty

1. The i-TECH160 welder is covered by a comprehensive 2 year return-to-base parts & labour warranty.
2. Improper use, abuse or any attempt to repair the product by an unauthorised third party will invalidate any warranty claim.
3. Any parts or consumables fitted or used in conjunction with the i-TECH160 which affect the equipment operation & which are deemed by Inverter Fusion Ltd to be of inferior quality or not fit for that purpose will be regarded as abuse and will invalidate the warranty claim.
4. The claimant is responsible for all carriage, insurance and transportation costs in returning the product to Inverter Fusion Ltd.
5. Upon receipt and inspection of the product, it will be repaired or replaced at the discretion of Inverter Fusion Ltd. In the event of a chargeable repair, or a repair being required that is not considered to be a warranty issue, the claimant will be contacted for further instructions.
6. Following the completion of any authorised warranty claim work, the product will be returned to the claimant at the cost of Inverter Fusion Ltd (UK customers only).

Safety

There are inherent safety issues whilst welding so please ensure you read this manual carefully before commencing operations.

1. Whilst welding, ensure that you are working in a well ventilated area to avoid breathing in smoke & fumes.
2. Always wear a suitable welding mask/helmet, welding gloves & protective clothing whilst welding.
3. When appropriate use a suitable welding screen or curtain to protect other people.
4. Do not weld near flammable materials or combustible liquids or gases.
5. Whilst welding ensure that the electrode holder & the earth return clamp do not come into contact with each other as this could cause both personal injury & damage to the machine.

Set Up & Working Environment

1. The i-TECH160 welder should be operated from a 240v power input.
2. If you are using a generator, ensure it is powerful enough to operate the machine. For best results use a generator fitted with an AVR.
3. The i-TECH160 welder should be used & stored in dry conditions.
4. Avoid working in environments where there is a lot dust or corrosive gases.
5. Do not grind near to the air intake of the machine

Operating Instructions

1. Connect the earth return lead to the negative socket on the front of the machine and the electrode holder lead to the positive socket.
2. Turn the power switch at the back of the machine on — you will hear the fan start to work & the green “power on” indicator LED will light up.
3. Set the welding current to the required level depending on the size of electrode you will be using — general guidelines are as follows:

   ∅ 1.6mm: 90 Amps ∅ 2.5mm: 110 Amps ∅ 3.2mm: 135 Amps ∅ 4.0mm: 160 Amps

4. Attach the earth return clamp to the work piece or work bench & insert the electrode into the holder.
5. Strike the electrode on the work piece to establish a welding arc.
6. Once you have finished welding, lift the electrode away from the work piece & switch the power off at the back of the machine.

Troubleshooting

Fault	Cause	Remedy
The power on LED is not lit	No mains power available	Ensure that the machine is connected to a suitable live mains power source & is switched on.
	The fuse in the plug is no longer working	Replace the fuse.
The yellow LED light is lit	The machine has overheated because the working duty cycle has been exceeded	Stop welding for a while to allow the machine time to cool down. Ensure that the fan & output ducts are free from obstruction & that there is adequate ventilation space around the machine.
No welding output	Welding leads are incorrectly fitted	Check that the leads are fitted to the correct sockets & that the earth return is connected to the work piece.
Welding operation is erratic or not as required	Incorrect welding current selected	Check that the current setting is correct for the selected electrode.
	Faulty or damp electrode	Select an alternative electrode.
Erratic or uncontrollable welding arc	Faulty electrode holder or bad earth return connection	Check that the correct sized components are fitted & that the electrode holder is in good condition. Ensure that there is a good earth return connection with the work piece.

INVERTER FUSION LTD

Heathpark Way, Heathpark Industrial Estate, Honiton, Devon, EX14 1BB.

Tel: 01404 549791 | Fax: 01404 46718 | Email: sales@inverterfusion.co.uk

Website: www.inverterfusion.co.uk | Facebook: www.facebook.com/inverterfusionltd